

Top hat rail measuring transducers for temperature with multi-range switching and active output

The top hat rail measuring transducer THERMASGARD® HSM is an analog temperature measuring transducer for Pt100 or Pt1000 sensors according to DIN 60751, with 13 switchable measuring ranges (selectable via DIP switches). It is installed inside control cabinets or distribution boxes. The top hat rail transmitter converts the sensor's temperature-dependent resistance signal into a standard signal of 0 - 10 V or 4...20 mA. The output signal is highly accurate temperature linear. The measuring transducer is factory-calibrated.

TECHNICAL DATA:

Output:	0 - 10 V	4...20mA
Power supply:	24 V AC / DC ±10%	24 V DC
Power consumption:.....	< 0.2 VA /	< 0.55 VA /
	24 V AC / DC	24 V DC
Input:	Pt100 /	Pt100 /
	Pt1000	Pt1000
Testing current:	0.25 mA	0.25 mA
Zero point:	-200...+830 °C	-200...+830 °C
Range:.....	>20 °C.....	>20 °C
Sensor breakage:	>10 V	>20 mA
Short circuit:.....	0 V	<4 mA
Residual ripple permissible:...	<10 %	<10 %
Output:.....	0-10 V	4...20 mA
	min. load resistance	max. working resistance
	3 kOhm	$R_a \text{ (Ohm)} = U_B \cdot 12 \text{ V} / 0.02 \text{ A}$
Response time:	<0.1 s	<0.1 s
Operating temperature:	-40...+85 °C	-40...+85 °C

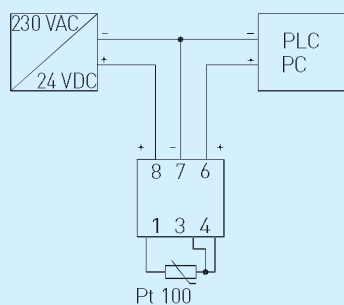
Enclosure:.....2TE (75 x 25 x 53 mm)
 material polycarbonate,
 colour signal green (similar RAL 6029)

Protection class:.....III (according to EN 60 730)

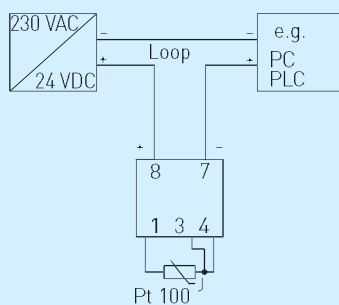
Protection type:.....IP 20 (according to EN 60 529)

Standards:.....CE conformity, electromagnetic compatibility
 according to EN 61 326 + A1 + A2,
 EMC directive 2004 / 108 / EC

Connecting diagram **HSM - U**



Connecting diagram **HSM - I**

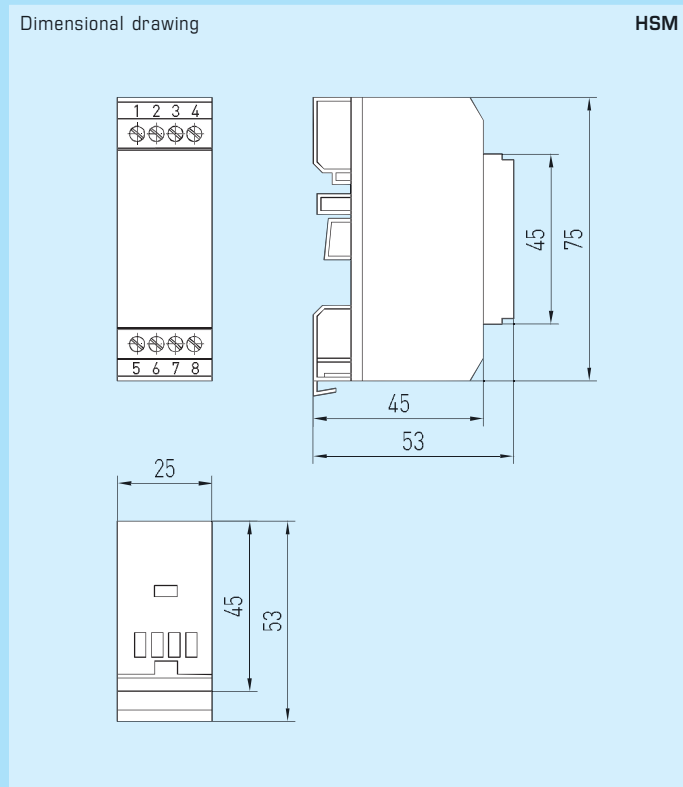




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HSM

(Picture similar)



Measuring ranges (adjustable)	DIP 1	DIP 2	DIP 3	DIP 4
-20 °C ... +150 °C	ON	ON	ON	ON
0 °C ... +50 °C	OFF	ON	ON	ON
0 °C ... +100 °C	ON	OFF	ON	ON
0 °C ... +200 °C	OFF	OFF	ON	ON
0 °C ... +300 °C	ON	ON	OFF	ON
0 °C ... +400 °C	OFF	ON	OFF	ON
0 °C ... +500 °C	ON	OFF	OFF	ON
0 °C ... +600 °C	OFF	OFF	OFF	ON
-50 °C ... +50 °C	ON	ON	ON	OFF
-100 °C ... +100 °C	OFF	ON	ON	OFF
-30 °C ... +70 °C	ON	OFF	ON	OFF
-40 °C ... +60 °C	OFF	OFF	ON	OFF
0 °C ... +250 °C	ON	ON	OFF	OFF

THERMASGARD® HSM

Type / WG1	Sensor	Output	Item No.
HSM-I			IP20, I-variant
HSM-I	Pt100 / Pt1000	4...20 mA	1101-6112-0009-700
HSM-U			IP20, U-variant
HSM-U	Pt100 / Pt1000	0-10 V	1101-6111-0009-700
Extra charge:	Other ranges optional		
For special orders please specify:	Type and measuring range (MR) e.g. HSM-U, Pt100, (MR: 0...+450 °C); HSM-I, Pt100, (MR: 0...+550 °C)		